

ABSTRACT

A method for manufacturing an optical fiber preform and fiber. According to the method, a first glass rod is formed, preferably by an OVD method, with a refractive index delta preferably between 0.2% and 3%. A glass sleeve tube is formed, preferably by an MCVD or PVCD method. The first glass rod is inserted into the sleeve and an alkali metal vapor is flowed between the sleeve tube and the first glass rod. Additional glass may optionally be formed on the inside surface of the sleeve tube prior to inserting the first glass rod and flowing the alkali metal vapor. The additional glass may be up-doped, down-doped, or both. The sleeve may then be collapsed onto the first glass rod to form a second glass rod doped with an alkali metal oxide. The second glass rod is drawn to form a third glass rod. Additional glass may then be formed on the third glass rod to form an optical fiber preform from which optical fiber may be drawn. Alternatively, the first glass rod is removed from the sleeve tube after flowing the alkali metal vapor and before the collapse step, after which additional glass may be formed on the first glass rod to form an optical fiber preform.